Sanitized Copy Approved for Release 2011/09/19 : CIA-RDP78-03424A002000060019-5 25X1 TEST REPORT MILITARY RECORDER 25X1 Model MR-1 26 August 1959 Crosstalk l. Minimum of 40 db Specification: Due to the noise level of the system, evaluation Test: of the crosstalk figure was not obtainable on playback. Record amp crosstalk = more than -70 db. Frequency Response 2. +6 db $250 \sim$ to 60 Kc Specification: Low -5 CH 1 $1000 \sim = 0$ Test: High +1 Low -4 $1000 \sim = 0$ CH 2 High +1.5Low -4.5 CH 3 $1000 \sim = 0$ High +1.3Bias Frequency 3. Specification: 250 Kc Test: 253 Kc Wow & Flutter 4. .5% Peak to Peak Specification: .5% Peak to Peak Test: Power Drain 5. 5 amps Run Specification: 25X1

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5. Power Drain (contd.)

Test:

Rewind

9 amps

Amplifiers

.8 amps

Start

Forward Play 5 amps

Forward Record

5.3 amps

6. Signal to Noise

Specification:

None

Test:

Unit Stopped

Noise CH l

.25 volts peak to peak

CH 2

. 13 volts peak to peak

CH3

CH 1

.5 volts peak to peak

Noise

rms

CH 1 -42 db

CH 2 -43 db

CH 3 -37 db

Unit Running

Noise

rms

-34 db

CH 2 -37 db

CH 3 -34 db

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TEST REPORT

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ENVIRONMENTAL CONDITIONS

Model MR-1

1 HEAT TESTS

1.1 Test on Circuit Cards Only

60 cycle frequency sub-system. AO-49 (3600 cps oscillator) connected to FD-1 (frequency divider) for 60 cps output.

Temperature	Gain	Remarks
70° F	0 db	Ambient reference setting
$120^{\rm O}$ F	-1 db	Rising temperature - heat chamber
$140^{\rm O}$ F	-1,5 db	Rising temperature - heat chamber
$150^{\rm O}~{ m F}$	-2 db	Rising temperature - heat chamber
150 ^O F	-3 db	Stabilized temperature 15 mins heat chamber

1.2 Test on Entire Unit

Removed from case to allow faster stabilization at temperatures.

<u>Temperature</u>	Operation	Remarks
120 ⁰ F 125 ⁰ F 125 ⁰ F	Normal Normal Normal	Drive motor comes to sync in normal time Drive motor comes to sync in normal time Runs sync speed through 1800 ft. reel of tape
$125^{\rm O}$ F	Normal	Stabilized 15 mins.: then repeated 1800 ft. run

2 COLD TEST

Entire unit in case (to prevent frost condensation on components).

	Starter		Drive	Motor	
<u>Temperature</u>	Motor	Solenoids	Runs	Sync	Remarks
-40° F	OK	OE	Nto	No	
	OK	OK	No	No	
-20 ⁰ F	OK	OK	No	No ·	
-0^{O} F	OK	OK	No	No	
+20° F	OK	OK	No	No	
$+30^{O}$ F	OK	OK	No	No	
+32° F	OK	OK	Yes	No	Would not quite pull in
+40° F	OK	OK	Yes	Yes	Normal operation

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3	ROOM AMBIENT TESTS		•	·	
3.1	Frequency Response		·		
Withi	n specification,				
3,2	Output Level				
Withi	n specification.				
3.3	Record Level				
Withi	n specification,				
3.4	50 K cps Record			,	•
Norm	nal,			•	
3.5	Operational Check				
Norm	nal operation.				
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